

Appl. No. 10/789,321
Reply to Office Action of June 25, 2007

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A water-based ink comprising a colored microparticle dispersion having water and a microparticle containing a resin and a colorant,

wherein the microparticle has a core part and a shell part to form a core-shell structure made of resin and the core part and the shell part are cross-linked with a cross-linking agent, and the core part comprises the colorant.

2. (Original) The water-based ink of claim 1, wherein the resin contained in the microparticle has a group represented by General Formula (A):

General Formula (A)

-Z-R

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wherein R is a hydrogen atom, a hydroxy group, an alkyl group, an aryl group or a heterocyclic group; Z is a block polymer unit or a random polymer unit containing an ethylene oxide group or a propylene oxide group, a molecular weight of Z being from 88 to 30000.

3. (Original) The water-based ink of claim 1, wherein a polymerizable emulsifying compound is used to prepare the colored microparticle dispersion.

4. (Original) The water-based ink of claim 1, wherein a volume average diameter of the microparticles is 10 to 100 nm.

5. (Original) The water-based ink of claim 1, wherein a variation coefficient of the volume average diameter of the microparticles is not more than 80%.

6. (Original) An ink-jet ink containing the water-based ink of claim 1.

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7. (Original) A method of preparing the colored microparticle dispersion of claim 1, wherein the cross-linked core-shell particle is prepared by the method comprising the steps of:

(i) dissolving a colorant and a resin in a water-insoluble organic solvent to obtain a colorant solution;

(ii) mixing the colorant solution with water and an emulsifying agent so as to obtain a colorant emulsion; and

(iii) adding a cross-linking agent to the colorant emulsion so as to form the cross-linked core-shell particle.

8. (Original) A method of forming an image, comprising the step of ejecting a droplet of the ink-jet ink of claim 6 through an ink-jet head in accordance with a digital signal onto an ink receiving sheet.